

What is claimed is:

1. A method of treating a subject having an insulin-related disorder, the method comprising reducing the level of active p85 $\alpha$  in a cell of the subject.

5

2. A method of treating a subject having an insulin-related disorder, the method comprising increasing the level of p85 $\beta$  in a cell of the subject.

3. A method of identifying a subject at risk for an insulin-related disorder, the  
10 method comprising evaluating the expression of p85 $\alpha$  to determine if the subject is at risk.

4. A method of analyzing a treatment for its effect on insulin metabolism, the  
method comprising providing a cell in which the expression of p85 $\alpha$  has been altered.

15

5. A genetically modified animal lacking expression of p85 $\alpha$ , p55 $\alpha$ , and p50 $\alpha$ .

20054242.doc